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Forestry Mimeograph No. 12

Sounding Damage on Thin-barked Trees

by

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Foresters working on the Experimental Forests Project for several years have occasionally noted damage on various thin-barked tree species from previous sounding of butts for cull estimation. A good example was found during the first 5-year remeasurement of Experimental Forest No. 22 in Hancock County, Ohio. These marks were made during the establishment of permanent Continuous Forest Inventory System plots in 1947. Inspection of the marks in the field and on the photograph (Figure 1) indicates that they can be identified by one straight side with occasionally a shorter, straight side at right angles to the first, at least on beech, during the early stages of damage. This corresponds to the long edge and corner of the hand axe head that was used to pound the tree. It is apparent that originally the bark fell off, leaving an exposed wound. Complete healing is shown by the line of callus in the center of each bark distortion.

The effect on forest management is uncertain; however, the following suggestions will give a timber estimator an idea on how to evaluate it.

1. On logs, the defect will slab off in milling or be lost in surfacing a bolt for veneer, if the damage was recent.

2. Timber buyers might lower their rates for some particular stumpage if they are not sure that the marks are surface defects only.

3. Timber owners are likely to think that great damage has been done to their trees, and perhaps the reputation of the timber estimator may suffer regardless of how little actual damage has occurred.

Since many foresters seldom have the chance to return to a forest in which they have made an inventory for volume estimation or timber marking, they may be unaware of the consequences of heavy sounding on thin-barked trees. Careful, light tapping with the hand axe should produce sufficient tone to afford the timber estimator a chance to judge cull volume in a tree butt without causing damage.

References

Lockard, C. R., 1950. Hardwood Log and Timber Quality Appraisal Training Program for Foresters. Northeastern Forest Experiment Station, Upper Darby, Penna., Mimeo. 12pp.

Sounding damage on beech, Hancock County, Ohio.

This tree grew from 18.4″ d. b. h. in November, 1947 when the sounding occurred, to 19.2″ d. b. h. when the photograph was taken in January, 1953.